

Application No. 09/904,282
Filed: July 12, 2001
TC Art Unit: 1733
Confirmation No.: 2073

REMARKS

Claims 1, 2, 5, 7, 8, 11-14, and 16-18 have been rejected under 35 U.S.C. § 103(a) over "admitted prior art" from Applicants' specification (pages 1-3 and 11) in view of Reeves et al. (US Pat. No. 4,463,043) and Vane (US Pat. No. 5,055,242). Reconsideration and withdrawal of this rejection is respectfully requested.

Vane has been cited for teaching the incorporation of structural elements into pultrusion processes. Vane relates to processes for forming articles from a plurality of superimposed layers. (Col. 2, lines 14-19; col. 5, lines 24-30). Vane also notes that, "if desired, pieces or patches 3a, 4a of reinforcing material can be inserted between any of the adjacent layers 1-6 prior to said stitching, as by means of a suitable robot mechanism, to provide additional reinforcement or thickness of a required size and shape and at required locations in the finished articles." (Col. 5, lines 60-65)

Thus, in Vane the pieces 3a, 4a of Vane are disposed horizontally. However, in Applicant's invention, Species I-B-II, readable on claim 9 and drawn to "structural elements disposed horizontally between adjacent core elements in a plane parallel to the direction of travel," was not elected in response to the Examiner's election of species requirement. Thus, claim 1 amended to incorporate the subject matter of claim 8 is believed to be directed to a patentably distinct species.

In particular, claim 1 as amended recites that the structural element is disposed between opposed faces of at least two adjacent core elements in a plane perpendicular to the direction of travel

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in the pultrusion process. Claim 8 has been cancelled. In making the restriction requirement, the invention recited in claim 8 is considered to be patentably distinct from the invention recited in claim 9. Vane does not disclose, teach, or suggest placing a structural element between cores in a plane perpendicular to the direction of travel in the pultrusion process. Accordingly, claim 1 and the claims dependent therefrom are accordingly believed to be patentable over the "admitted prior art" pultrusion process in view of Reeves and Vane.

Claims 19 and 20 have been rejected under § 103(a) over the "admitted prior art" in view of Vane. Reconsideration of this rejection is respectfully requested.

Vane has been cited for teaching the application of stitching to pre-pultruded substrates. Vane, however, discloses the use of stitching to prevent bunching of yarns or threads: "[B]ecause the yarns or threads in each of the layers of the reinforcing material are maintained in fixed position relative to one another by said stitching there is no fear of bunching of the yarns or threads in any of the layers" (Col. 4, lines 31-34). See also Vane at col. 1, lines 45-51, and col. 5, lines 42-48. Thus, one of skill in the art, looking at Vane's teaching, would not find it obvious to apply stitching to a core element comprising a homogeneous material.

Furthermore, as noted previously by Applicant, continuous stitching as presently recited in claim 19 is advantageous in that there is no break in the reinforcing stitching throughout the structural element. In contrast, pre-stitched, prefabricated cores are available only in certain sizes, which are typically not identical to the size of the desired structural element. Thus, a

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plurality of such pre-stitched cores must be assembled, leaving breaks in the stitching at the boundary between adjacent cores. Vane does not address this problem with pre-stitched cores. Accordingly, claims 19 and 20 are believed to be patentable over the prior art of record as well.

In view of the above amendments and remarks, Applicants submit that all claims are in condition for allowance, and reconsideration and indication thereof are respectfully requested. The Examiner is encouraged to telephone the undersigned attorney to discuss any matter that would expedite prosecution of the present application.

Respectfully submitted,

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